#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1x.28

## WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-027349 Address: 333 Burma Road **Date Inspected:** 20-Mar-2012

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV Contractor: American Bridge/Fluor Enterprises, a JV **Location:** On Site

**CWI Name:** John Pagliero **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG 13 and 14

## **Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Art Peterson arrived on site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor the welding operations performed by American Bridge Fluor (ABF) welding personnel. The following observations were:

OBG East Line Segment 13E/14E -A- LS-5:

This QA Inspector randomly observed ABF welder Richard Garcia (Welder ID 5892) performing the repair weld operation from ultrasonic rejectable indications on a complete-joint penetration (CJP) Butt-joint double V groove weld operation per the Shielded Metal Arc Welding (SMAW) process in the (3G) vertical position on the transverse weld splice of I-Rib LS-5.

This QA Inspector observed QC Inspector John Pagliero verify prior to the start of the repair weld operation, that the minimum preheat temperature as per the approved WPS was established and afterwords; verified that the welding parameters (Amps and Travel Speed) were in accordance with WPS 1012-3 Repair Revision 0 using Lincoln E9018 (3.2 mm) diameter electrode.

The repair weld operation was completed on this date and the workmanship appeared to be in general compliance with the contract specifications.

OBG East Line Segment 14E @ PP128 Bike-Path Side Traveler Rail Support Brackets:

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This QA Inspector randomly observed ABF welder Rory Hogan (Welder ID 3186) performing the fillet and flare bevel groove weld operation per the Shielded Metal Arc Welding (SMAW) process in the (2F and 3F) horizontal and vertical positions on the traveler rail support bracket on Segment 14E @ PP128.

This QA Inspector observed QC Inspector Steve McConnell verify prior to the start of the fillet and flare bevel groove weld operation, that the minimum preheat temperature as per the approved WPS was established and afterwords; verified that the welding parameters (Amps and Travel Speed) were in accordance with WPS F1200A Revision 0 and WPS D11-1190 Revision 0 using Lincoln E7018 (3.2 mm) diameter electrode.

The fillet and flare bevel groove weld operation was completed on this date and the visual inspection of the fillet and flare-bevel groove welds appeared to be in general compliance with the contract specifications.

### OBG 12E/13E - A plate - LS-6:

This QA Inspector randomly observed ABF welder Jeremy Dolman (Welder ID 5042) performing the partial-joint penetration (PJP) T / Corner-joint groove weld operation per the Shielded Metal Arc Welding (SMAW) process in the (4G) overhead position on deck stiffener flange plates to I-Rib LS-6.

This QA Inspector observed QC Inspector Steve McConnell verify prior to the start of the PJP groove weld operation, that the minimum preheat temperature as per the approved WPS was established and afterwords; verified that the welding parameters (Amps and Travel Speed) were in accordance with WPS 1162-4 Repair Revision 0 using Lincoln E9018 (3.2 mm) diameter electrode.

The PJP groove weld operation performed on the deck stiffener plates were still in-process on this date and the workmanship appeared to be in general compliance with the contract specifications.

OBG 13E: Vent Hole and Lifting Lug Holes (LLH):

This QA Inspector performed ultrasonic test (UT) verification inspection on the complete-joint penetration (CJP) butt-joint groove weld of an insert plate on the A-deck surface of OBG13E after Quality Control (QC) performed their final NDT as per AWS D1.5 -2002 and the contract specifications. The following UT verification inspection (10% of weld length) was performed at the following weld locations:

Vent Hole insert plate on the exterior side of OBG 13E at PP118.7.

LLH (#1, #2, #3 and #4) on the exterior side of OBG 13E at PP119.5 E3 Line -13EPP119.5E3 - LLH-1-2-3-4.

LLH (#1, #2, #3 and #4) on the exterior side of OBG 13E at PP118.5 E3 Line -13EPP118.5E3 - LLH-1-2-3-4.

The UT verification inspection performed on this date appeared to be in general compliance with AWS D1.5-2002 Table 6.3 for the 20 mm thick insert plate butt-joint weld. See TL-6027 ultrasonic test report for further details of the UT inspection.

**Summary of Conversations:** 

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Only general conversations between this QA and QC on this date.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Peterson,Art	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer